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Notice of Allowability

Application No.

10/792,208

Examiner

Philip Wang

Applicant(s)

AHLUWALIA ET AL.

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 8/15/2007.
2. ☒ The allowed claim(s) is/are 1,4-6,8,10-27,29-39 and 41-43.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Detail Action

1. This office action is in response to the amendment filed on 8/15/2007.
2. The 35 U.S.C. 35 rejections to claims 1-47 have been withdrawn in view of the Applicant's amendment to the claims.
3. Claims 1, 4-6, 8, 10-27, 29-39, and 41-43 are allowed.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a communication with Edwards J, Brooks (Reg. No. 40,925) on October 24, 2007 and October 31, 2007.

The following listing of claims will replace all prior versions and listings of the claims in the application:

1. (Currently Amended) A software testing device, comprising:
a processor;
a memory coupled to the processor; and
program instructions provided to the memory and executable by the processor to:
register ~~which kinds of~~ assertions which fail ~~most often~~ during testing of software code;

collecting a history of assertions which fail;

analyze assertions which fail ~~most often~~ against a set of ~~questions~~ rules to correlate an instance of a failed assertion with a type of assertion and to identify a frequency of occurrence in association with the type a kind for each failed assertion; and

score assertions by assigning points to the assertions which fail based on the frequency of occurrence and the type.

2. (Delete)
3. (Delete)
7. (Delete)
9. (Delete)

12. (Currently Amended) A software testing system, comprising:
a computing device having software code executing thereon; and
a software testing device coupled to the computing device, the software testing device, comprising:
a processor;
a memory coupled to the processor; and
program instructions provided to the memory and executable by the processor to:
register assertions which fail in association with the software code
executing on the computing device;
~~analyze assertions which fail against a set of rules to determine a kind of~~
~~assertions which repeated fails;~~
collect a history of assertions which fail in association with the software
code executing on the computing device;
analyze assertions which fail against a set of rules to correlate assertions
which fail with a kind of assertion which repeatedly fails; and
score assertions by assigning points to assertions which fail based on a
frequency of occurrence and the kind of assertion.

13. (Currently Amended) The system of claim 12, further including program instructions that execute to correlate assertions which fail with the kind ~~a type~~ of assertion in the software code executing on the computing device.

24. (Currently Amended) A method for software testing, comprising:
registering assertions which fail during testing of software code;
collecting a history of assertions which fail;
analyzing failed assertions against a set of questions to correlate an instance of a failed assertion with a type of assertion and to identify a frequency of occurrence in association with a type for each failed assertion; and
scoring failed assertions by assigning points to the assertions based on the frequency of occurrence in association with the type for each failed assertion .

28. (Delete)

32. (Currently Amended) A method for software testing, comprising:
registering assertions which fail in association with software code executing on the computing device;
~~analyzing assertions which fail against a set of rules to determine a kind of assertion which repeatedly fails;~~
collecting a history of assertions which fail in association with the software code executing on the computing device; and
analyzing assertions which fail against a set of rules to correlate an instance of a failed assertion with a type of assertion; and
scoring assertions which fail by assigning points to the assertions based on a frequency of occurrence and the kind of assertion.

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39. (Currently Amended) A computer readable medium having instructions for causing a device to perform a method, comprising:

registering assertions which fail during testing of software code;

collecting a history of assertions which fail;

analyzing failed assertions against a set of questions to correlate an instance of a failed assertion with a type of assertion and to identify a frequency of occurrence in association with the [[a]] type for each failed assertion; and

scoring failed assertions by assigning points to the assertions based on the frequency of occurrence in association with the type for each failed assertion.

40. (Delete)

41. (Currently Amended) The medium of claim 39, wherein the method includes registering assertions, analyzing failed assertions, scoring failed assertions, and collecting a history of assertions which fail across a number of software code tests.

44. (Delete)

45. (Delete)

46. (Delete)

47. (Delete)

Reasons for allowance

The following is an examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fail to teach the limitation of "analyzing failed assertions against a set of questions to correlate an instance of a failed assertion with a type of assertion and to identify a frequency of occurrence in association with the type for each failed assertion; and scoring failed assertions by assigning points to the assertions based on the

frequency of occurrence in association with the type for each failed assertion.” as recited in independent claims 1, 12, 24, 32, and 39.

4. The closest cited prior arts, “Activating Assertions And Breakpoints”, by Blementhal et al. (US PGPub. No. 2005/0055605), discloses a system of using assertions to test system and collecting counts of failed assertions. However, Blementhal et al. does not specifically disclose analyzing failed assertions against a set of questions to correlate an instance of a failed assertion with a type of assertion and to identify a frequency of occurrence in association with the type for each failed assertion; and scoring failed assertions by assigning points to the assertions based on the frequency of occurrence in association with the type for each failed assertion.

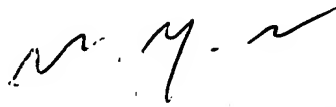
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00 - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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SPE TC 2100